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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/830,512	04/25/2001	David F. Dawson-Elli	DAWSON-ELLI6	8188
7590	10/21/2003		EXAMINER	
Robert L Carlson Corning Incorporated SP TI 03 Corning, NY 14831			PRICE, CARL D	
			ART UNIT	PAPER NUMBER
			3749	

DATE MAILED: 10/21/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/830,512	DAWSON-ELLI ET AL.
	Examiner CARL D. PRICE	Art Unit 3749

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
 THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(e). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 08 August 2003.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-4,6-49 and 54-56 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) 54-56 is/are allowed.
- 6) Claim(s) 1,3,4 and 37 is/are rejected.
- 7) Claim(s) 2,6-36,38-49 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
 If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims 1-4 and 6-56 have been considered but are moot in view of the new ground(s) of rejection.

The indication of allowable subject matter, in claims 4,6 and 50-53, made in the previous office action is herein withdrawn, in view of the teachings of the newly discovered prior art which now forms the basis of rejection for these claims.

Applicant has changed the scope of claim1 by adding the phrase "wherein the fluid passages have a smaller cross section at the fluid outlets than at the fluid inlets". Applicant has broadened the scope of claim 1 by deleting the phrase "and at least one pressure inducing restriction ... being positioned between the fluid inlets and the fluid outlets".

The prior art reference of Bartels et al. is now relied on to address the applicant's claimed invention as now recited in amended claim 1.

Claim Objections

Claim 6 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the

claim(s) in independent form. Since claim 6 depends on cancelled claim 5 it does not further limit a previous claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

he has abandoned the invention.

the invention was first patented or caused to be patented, or was the subject of an inventor's certificate, by the applicant or his legal representatives or assigns in a foreign country prior to the date of the application for patent in this country on an application for patent or inventor's certificate filed more than twelve months before the filing of the application in the United States.

the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000.

Claims 1,3 and 4: rejected under 35 U.S.C. 102(b)

Claims 1,3 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Bartels et al (U.S. Patent No.- 5,472,143)(newly cited).

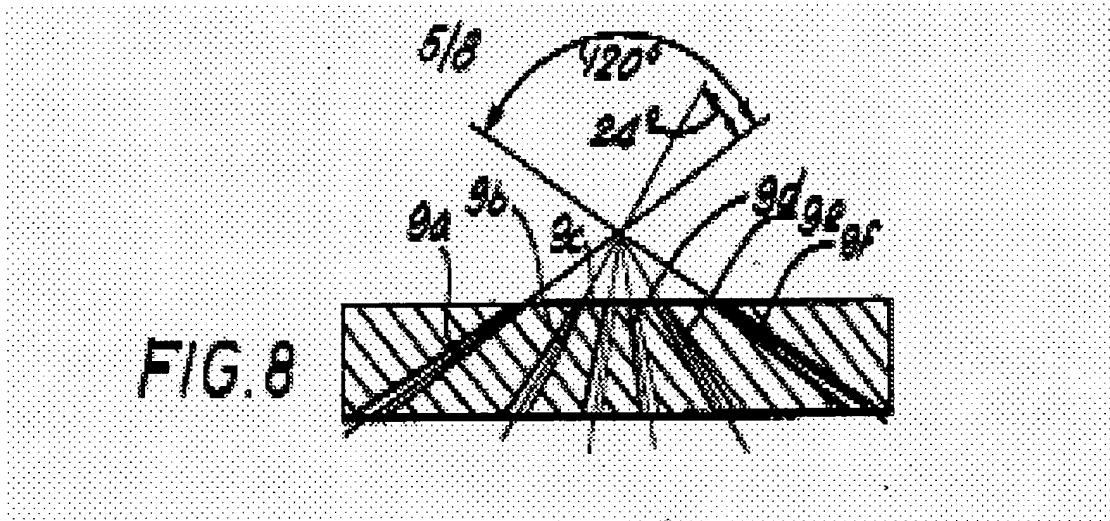
Bartels et al. disclose and show (figures 3,3a, 3b, 8,12,13) various manifolds including a plurality of converging passages with a plurality of inlets and a plurality of outlets wherein the fluid passages have a smaller cross section at the fluid outlets than at the fluid inlets. Bartels et al discloses “slitted”, “square”, “round” and “ very narrow or flat nozzle openings” as suitable cross-sectional nozzle shapes. In regard to claim 4, the “slitted” and “ very narrow or flat nozzle openings” are deemed the structural and functional equivalent to applicant’s “slot-shaped” fluid passage outlets.

Bartels et al disclose:

“FIG. 3 shows part of a nozzle assembly 36 in which the two-stage filter 37, 38 and the five parallel channels 35 generally correspond to the filter 27, 28 and channels, 25 of the embodiment shown in FIGS. 2/2a. The nozzle outlet 24 according to FIG. 2 is, however, replaced here by the twin nozzle outlet 39a/39b. As can be seen from the enlarged drawing in FIG. 3b, the twin nozzle outlets 39a/39b direct two jets at an angle of 90.degree relative to each other. Due to the collision of the jets, particularly good atomization is obtained. The twin nozzle outlets can be modified in various ways. Thus, both jets can, if so desired, be oriented towards each other at a more acute angle or at a more obtuse angle (about 20.degree. to 160.degree., preferably 60.degree. to 150.degree. and more preferably 90.degree. to 120.degree.). In addition the cross-section of the nozzle outlets can be selected differently; for example the strong tapering of the outlets 39a/ 39b in FIGS. 3, 3a, may be dispensed with. As illustrated in FIGS. 3b, it is desirable for the jets to impinge a slight distance away from the nozzle outlets. Smaller orientation deviations do not then result in incomplete collision of the jets on one another. The edges of the structure may be beveled where long term use of the channel plate might cause breakages to the edges which could cause the filter or nozzle to become blocked.”

Bartels et al further disclose:

"FIG. 8 shows the nozzle outlet region of a nozzle assembly according to the invention wherein six nozzle outlets 9a to 9f are oriented in such a way that the jets which issue therefrom meet at a point. This can avoid a situation where the other jets no longer collide if one of the nozzles becomes blocked. In FIG. 9, an impact element 43 is provided in the mouth 44 of a nozzle outlet 45, which widens towards the outside. Similarly, in FIG. 10, a vortex-generating structure 46 is fitted into a mouth 47 of the nozzle outlet which promotes a greater vortex formation of the issuing fluid. FIGS. 11a to 11c also show a section of the nozzle assembly in the region of the nozzle outlet, wherein various geometric shapes for the nozzle outlets are illustrated at 48a, 48b and 48c."



Bartels et al further disclose:

The plates 61, 70 and 80 can be formed from any suitable material, for example a photo-resist glass, ceramic or plastic or a metal, and the features in plate 61 formed by removing material from plate 61 in the desired locations by a conventional chemical etching process. Alternatively, the features can be formed by removal of material using a laser. Since the features are formed on the exterior of a substantially flat member, there is no need for complex machining of components or assembly of sub-components.

And, Bartels et al disclose:

"The cross-sectional shape of the nozzle outlet or the sum of the cross-sections of the nozzle outlet can be varied within further boundaries. At a given pressure, the cross-section of a **slotted nozzle outlet** can be considerably greater than the cross-section of a **square or round nozzle outlet**, without the droplet spectra being impaired. The cross-section of the nozzle outlets or the sum of the cross-sections is usually between 5 and 2000 μm^2 , preferably between 20 and 1000 μm^2 and in particular between 25 and 500 μm^2 . This also applies when two or more parallelly orientated nozzle outlets are provided.

(19) When, also, in particular in the case of **very narrow or very flat nozzle openings**, surface edge effects play a large role, the skilled person needs to take account of the knowledge of the physics concerning hydraulic cross-section in the determination of the arrangement of the nozzle outlets and the choice of the dimensions therefor."

In claim 1, the recitation "for delivering reactants to a combustion site of a chemical vapor deposition process" has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

In addition, the recitation "for delivering reactants to a combustion site of a chemical vapor deposition process", in claim 3, "for transporting reactant materials ..." are deemed merely a statement of intended use. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

Claims 1,3,4 and 37: rejected under 35 U.S.C. 102(b)

Claims 1,3,4 and 37 are rejected under 35 U.S.C. 102(b) as being anticipated by Villepin (FR 328947)(of record cited).

Villepin discloses and shows (figures 1,2) a plurality burner converging slot-shaped passages (8) defining plural inlets and plural of outlets wherein the fluid passages have a smaller cross section at the fluid outlets than at the fluid inlets. In regard to claim 37, the curved upstream surface (4) of Villepin defines a second tapered end and the similarly curved downstream end (not referenced) defines a first fluid outlet end smaller than the second fluid inlet end.

In claim 1, the recitation “for delivering reactants to a combustion site of a chemical vapor deposition process” has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

In addition, the recitation “for delivering reactants to a combustion site of a chemical vapor deposition process”, in claim 3, “for transporting reactant materials ...” are deemed merely a statement of intended use. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making,

the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

Claims 1,3,37: rejected under 35 U.S.C. 103(a)

Claims 1,3 and 37 are rejected under 35 U.S.C. 102(b) as being anticipated St. Julien et al (U.S. Patent No. – 6,299,958)(of record).

St. Julien et al discloses and shows (figures 1) a plurality converging passages defining plural inlets and plural of outlets wherein the fluid passages have a smaller cross section at the fluid outlets than at the fluid inlets. In regard t claim 37, upstream surface defines a second end and the downstream surface defines a first fluid outlet end smaller in area than the second fluid inlet end.

The recitation “for delivering reactants to a combustion site of a chemical vapor deposition process” has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

In addition, the recitation “for delivering reactants to a combustion site of a chemical vapor deposition process”, in claim 3, “for transporting reactant materials . . .” are deemed merely a statement of intended use. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

The issue of priority under 35 U.S.C. 102(g) and possibly 35 U.S.C. 102(f)

Claims 1,3 and 37 are directed to the same invention as that of claims 1,2 and 6 of commonly assigned U.S. Patent No. – 6,299,958. The issue of priority under 35 U.S.C. 102(g) and possibly 35 U.S.C. 102(f) of this single invention must be resolved.

Since the U.S. Patent and Trademark Office normally will not institute an interference between applications or a patent and an application of common ownership (see MPEP § 2302), the assignee is required to state which entity is the prior inventor of the conflicting subject matter. A terminal disclaimer has no effect in this situation since the basis for refusing more than one patent is priority of invention under 35 U.S.C. 102(f) or (g) and not an extension of monopoly.

Failure to comply with this requirement will result in a holding of abandonment of this application.

Double Patenting

A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

Claims 1,3 and 37 are rejected under 35 U.S.C. 101

Claims 1,3 and 37 are rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1,2 and 6 of prior U.S. Patent No. – 6,299,958 (of record).

This is a double patenting rejection.

The term homeycomb appearing in claims 1,2 and 6 of U.S. Patent No. – 6,299,958 is interpreted as a body having a plurality of side-by-side passages.

In applicant's claims the recitation "for delivering reactants to a combustion site of a chemical vapor deposition process" has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

In addition, the recitation “for delivering reactants to a combustion site of a chemical vapor deposition process”, in claim 3, “for transporting reactant materials …” are deemed merely a statement of intended use. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

Allowable Subject Matter

Claims 54-56 are allowed.

Claims 2,6-36 and 38-49 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

See the attached PTO FORM for prior art made of record that is not relied upon, which is considered pertinent to applicant's disclosure.

USPTO CUSTOMER CONTACT INFORMATION

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CARL D. PRICE whose telephone number is 703-308-1953. The examiner can normally be reached on Monday through Friday between 6:30am-3:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ira Lazarus can be reached on 703-308-1935. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 308-1148/0858.



CARL D. PRICE
Primary Examiner
Art Unit 3749

cp
10-14-2003